IN THE SPECIFICATION

Please amend the title of the application as follows:

SOLAR SENSOR FOR PROVIDING CONSTANT TOTAL SENSOR OUTPUT

Please amend the paragraph beginning on page 2, line 11 as follows.

According to the present invention, a solar sensor includes an optical lens disposed above optical devices and a lens member disposed between the optical devices and the optical lens. The optical lens functions as a divergent lens and ~~the~~ incident light spreading out from a concave formed on the optical lens irradiates a pair of projections formed on the lens member. The clearance between the concave and the projections in the direction of travel of a vehicle is ~~bigger~~ larger than ~~that between those~~ the clearance between the concave and the projections in the horizontally vertical direction to the direction of travel of a vehicle. Therefore, quantities of light irradiating to the projections are equally reduced by the optical lens in the case that incident light enters from the front side. However, in the case that incident light enters from the right or left side, the near side projection receives an unreduced quantity of light while the far side projection receives ~~more reduced quantity of~~ less light than in the case that the incident light enters from the front side. This is due to light divergence at the optical lens and interference of the near side projection ~~as a screen against the other~~ with the light incident on the far side projection. As a result, a total quantity of light irradiating to the projections is the same in both cases. Thus, the total output of the left and right optical devices in a detection of quantity of solar irradiation becomes constant irrespective of solar azimuth angle.

Please amend the paragraph beginning on page 4, line 26 as follows.

As shown in Figs. 3 and 4, the solar sensor S1 ~~comprises~~ includes a housing 2 that works as a connector as well, optical devices (sensor chips) 3 and 4, an optical lens 5 that guides incident light toward the optical devices 3 and 4, a lens member 6 and terminals 7. The housing 2 is composed of a case 8 and a holder 9 that are made of plastic. The case 8 is cylindrical and ~~operates in a standing pose~~ designed to operate in an orientation as shown in Figs. 3 and 4. The holder 9 is attached on the top of the case 8. The optical lens 5 shown in Figs. 3 and 4 is not shown in Fig. 1. Neither the optical lens 5 nor the lens member 6 that is a light diffusion lens in white is shown in Fig. 2.

Please amend the paragraph beginning on page 6, line 1 as follows.

As shown in Figs. 3 and 4, the lens member 6 is disposed to cover the optical devices 3 and 4 on the top of the holder 9. Namely, the lens member 6 is disposed between the optical devices 3 and 4 and the optical lens 5. The lens member 6 is made of white plastic or white glass and ~~comprises~~ includes a plate-shaped base member 13 that extends horizontally, a fixing part 14 that extends perpendicularly from the periphery on the member 13, and solid projections 15 and 16 on the member 13. The lens member 6 is fixed to the housing 2 in snap-fit between the fixing part 14 of the lens member 6 and the top end of the case 8 at the outside of the holder 9. The projections 15 and 16 are hemispheric and disposed above the optical devices 3 and 4 in such a way that the centers of the projections 15 and 16 are coincident with those of the optical devices 3 and 4, respectively. The top surface of the member 13 is coated with a black screen film 17 (the hatched area in Fig. 1) except the areas under the projections 15 and 16.

Please amend the paragraph beginning on page 6, line 16 as follows.

The optical lens 5 ~~in a bowl shape~~ is bowl-shaped and is made of dyed glass or plastic (translucent material) and fixed to the housing 2 by fitting the both together at the outer edge of the case 8. A hemispheric concave 18 is made at the central area on the inner surface of the optical lens 5 so that the lens 5 functions as an optical lens. The concave 18 is disposed in such a way that the concave 18 covers the projections 15 and 16 with designed clearances in-between.

Please amend the paragraph beginning on page 7, line 7 as follows.

In the case that incident light enters from the front side, the projections 15 and 16 receive an equal quantity of light and guide an equal quantity of light to the optical devices 3 and 4, as shown in Fig. 5. However, in the case that incident light enters from the right or left side, the near side projection receives an unreduced quantity of light while the far side projection receives a reduced quantity of light due to light divergence at the lens 5 and interference of the near side projection ~~as a screen against the other~~ so that the optical devices 3 and 4 receive a different quantity of light from each other. The case that incident light enters from the right side is shown in Fig. 6. Therefore, measuring the variance in output ratio between the optical devices 3 and 4 enables ~~to detect~~ the detection of solar azimuth angle.

Please amend the paragraph beginning on page 9, line 4 as follows.

As shown in Fig. 12, the screen wall 102 in the proposed sensor enhances the balance of the outputs between the optical devices 3 and 4 by means of attenuating or screening incident light irradiating to the far side optical device 101 so that total quantity of solar irradiation varies significantly in accordance with solar azimuth angle. In contrast, in the present embodiment, forming lens member 6 (light-guide) above the devices 3 and 4 provides the same effect as disposing three-dimensionally the optical devices 3 and 4 (enhancing the output balance between the devices 3 and 4) and enables ~~to make~~ the total quantity of solar irradiation to the devices 3 and 4 to be constant in collaboration with the optical lens 5.